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Post-processing: Minimum Match 0%
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Copyright (c) 1993 - 2000
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Sequence 2, Appli	Sequence 2, Appli	Seque d ce 4, Appli	Sequence 2, Appli	Sequence 13, Appl	Sequence 21, Appl	Sequence 23, Appl	Sequence 23, Appl	Sequence 4, Appli		Sequence 2, Appli						

ALIGNMENTS

US-08-147-772-4 RESULT

Sequence 4, Application US/08147772 Patent No. 58,58776

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GENERAL

INFORMATION:

Suzanne

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TELEFAX: (617) 227-594
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Baskar, Sivasubramanian APPLICANT: Glimcher, Laurie H. APPLICANT: Freeman, Gordon J. APPLICANT: Nadler, Lee M. TITLE OF INVENTION: Tumor Cells Wit
                                FEATURE:
                                                                   MOLECULE TYPE: protein
DESCRIPTION: B lymphocyte activation antigen;
DESCRIPTION: superfamily member; T cell costim
DESCRIPTION: via activation of CD28 pathways,
                                                                                                                                                                                                                                     REFERENCE/DOCKET NUMBER: RPTELECOMMUNICATION INFORMATION: TELEPHONE: (617) 227-7400
TELEPHONE: (617) 227-5941
                                                                                                                                                                                                                                                                                                               ATTORNEY/AGENT INFORMATION:
NAME: Mandragouras, Amy E.
REGISTRATION NUMBER: 36,207
                                                                                                                                                                                                                                                                                                                                                                                                          CLASSIFICATION: 424
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SOFTWARE: PatentIn Release #1.0, CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CORRESPONDENCE ADDRESS:
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                                                    superfamily member; T ovia activation of CD28 T cells, transmembrane
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                                                                                                                                                                                                                            115 MI-----SYGGADYKRITVKVNAPYNKINQRILVVD---PVTSEHELTCQAE-GYPKAE 164
                                                               232 FTWEKPPEDPPDSKNTLVLFGA---GFGAVITVV 262
                                                                                                225 VIPELPLAHPPNERTHLVILGAILLCLGVALTFI 258
                                                                                                                                                                                                120 VVQKKERGTYGVKHLALVKLSIKADFSTPN----ITESGNPSADTKRITCFASGGFPKPR
                                                                                                                                                                                                                                                                                     TITLE:
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BLICATION INFORMATION:
AUTHORS: FREEMAN, GORDON J.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FINGEROTH, JOYCE D. GRIBBEN, JOHN G. NADLER, LEE M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LOMBARD, DAVID B. ZHOU, LIANG-JI WHITE, MICHAEL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GRAY, GARY S.
GIMMI, CLAUDE D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ig V-set domain 1 to 105
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106 to 199
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                                                                                                                                                                                                                                                                                                                              11.7%; Score 177.5; DB 2; 26.6%; Pred. No. 3.4e-10; tive 36; Mismatches 92;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    hydrophobic
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RESULT 3
US-08-101-624-25
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Sequence 25, Application US/08101624
Patent No. 5942607
GENERAL INFORMATION:
APPLICANT: Freeman, Gordon J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity
Matches 57; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 8, Application US/08456104 Patent No. 5861310
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/101,
FILING DATE: 26-JUL-1993;
APPLICATION NUMBER: 08/109,
APPLICATION NUMBER: 19-AUG--
ATTORNEY/AGENT INFORMATION:
NAME: Mandragouras, Amy E.
REGISTRATION NUMBER: 36,207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TELEFAX: (617) 227-5941 INFORMATION FOR SEQ ID NO: 8:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REFERENCE/DOCKET NUMBER: RP
TELECOMMUNICATION INFORMATION:
TELEPHONE: (617) 227-7400
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CURRENT APPLICATION DATA:
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TITLE OF INVENTION: TUMOR CELLS MODIFIED TO NUMBER OF SEQUENCES: 8
CORRESPONDENCE ADDRESS:
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                                                                                                                                                                                                                                                                                                                                                                 115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT:
                                                                                                                                                           232 FTWEKPPEDPPDSKNTLVLFGA---GFGAVITVV
                                                                                                                                                                                                 225 VIPELPLAHPPNERTHLVILGAILLCLGVALTFI
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COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
                                                                                                                                                                                                                                                                                                                                                                                                  68 IYWQKHDKVVLSVIAGK--LKV-WPEYKNRT--LYDNTTY---SLIILGLVLSDRGTYSC
                                                                                                                                                                                                                                                                                                                                                                                                                                   55 VYWEMEDKNIIQFVHGEEDLKVQHSSYRQRARLLKDQLSLGNAALQITDVKLQDAGVYRC 114
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TOPOLOGY: linear
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CITY: Boston
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                                                                                                                                                                                                                                                                              VIWTSSDHQVLSGKTTTTNSKREEKLFNVTSTLRINTTTNEIFYCTFRRLDPEENHTAEL 224
                                                                                                                                                                                                                                                                                                                     VVQKKERGTYGVKHLALVKLSIKADFSTPN----ITESGNPSADTKRITCFASGGFPKPR 175
                                                                                                                                                                                                                                                                                                                                                      MI-----SYGGADYKRITVKVNAPYNKINQRILVVD---PVTSEHELTCQAE-GYPKAE 164
                                                                                                                                                                                                                                        FSWLENGRE-LPGINTTISQDPESELYTISSQLDFNTTRNHTIKCLIKYGDA---HVSED 231
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                               11.7%; Score 177.5; DB 2; ilarity 26.6%; Pred. No. 3.4e-10; Conservative 36; Mismatches 92;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            linear
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APPLICANT:

Freeman, Nadler,

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TELEFAX: (617) 227-59
INFORMATION FOR SEQ ID NO:
               PUBLICATION INFORMATION:
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REGISTRATION NUMBER: 36,207
REFERENCE/DOCKET NUMBER: RPI-004
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CLASSIFICATION: 514
PRIOR APPLICATION DATA:
APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NUMBER OF SEQUENCES: 25
CORRESPONDENCE ADDRESS:
ADDRESSEE: LAHIVE & COCKFIELD
                                                                                                                                                                                                                                                                                                                                              FEATURE:
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TITLE OF INVENTION: No. 5
TITLE OF INVENTION: Uses
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                           NAME/KEY: Ig C-set domain LOCATION: 106 to 199 IDENTIFICATION METHOD: sin IDENTIFICATION METHOD: see
                                                                                                                                                                                          IDENTIFICATION METHOD: IDENTIFICATION METHOD:
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                                                                                                                                IDENTIFICATION METHOD:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
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FREEMAN, GORDON J
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    : (617) 227-7400
(617) 227-5941
                                                                                                                                          Ig V-set domain
1 to 105
                                                                                                                                                                                                                          intracellular (cytoplasmic) domain 236 to 269
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           linear
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B lymphocyte activation antigen; Ig
superfamily member; T cell costimulator
via activation of CD28 pathways, binds
T cells, transmembrane protein
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No. 5942607el CTLA4/CD28 Ligands and
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                                          similarity with known
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RESULT 4
US-08-153-262-4
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                                                                                                                                                                                                                                                                                                                                                                                                                                         Patent No.
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APPLICANT:
                                                                                                                                                                                                                                                                             NUMBER OF SEQUENCES: 4
CORRESPONDENCE ADDRESS:
ADDRESSEE: The Dana-Farber Cancer Institute
                                                                                                CURRENT APPLICATION DATA: APPLICATION NUMBER: US
                                                                                                                                                                                       COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                 TITLE OF INVENTION:
                                                                                                                                                                                                                                     ADDITED: STREET: STREET: BOSTON
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      165 VIWTSSDHQVLSGKTTTTNSKREEKLFNVTSTLRINTTTNEIFYGTFRRLDPEENHTAEL 224
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  232 FTWEKPPEDPPDSKNTLVLFGA---GFGAVITVV 262
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   120 VVQKKERGTYGVKHLALVKLSIKADFSTPN----ITESGNPSADTKRITCFASGGFPKPR 175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           115
                                                                                                                                          MEDIUM TYPE: Diskette, 3.50 inch, 720kb storage COMPUTER: IBM Personal System 2; model 30 OPERATING SYSTEM: MS/DOS
                                                                                                                             SOFTWARE:
                                                                                                                                                                                                                        COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                68 IYWQKHDKVVLSVIAGK--LKV-WPEYKNRT--LYDNTTY---SLIILGLVLSDRGTYSC 119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             55 VYWEMEDKNIIQFVHGEEDLKVQHSSYRQRARLLKDQLSLGNAALQIIDVKLQDAGVYRC
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AUTHORS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FSWLENGRE-LPGINTTISQDPESELYTISSQLDFNTTRNHTIKCLIKYGDA---HVSED 231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MI-----SYGGADYKRITVKVNAPYNKINQRILVVD---PVTSEHELTCQAE-GYPKAE 164
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   l Similarity
57; Conserva
                                                                                                                                                                                                           02115
                                                                                                                                                                                                                    Massachusetts
Z: U.S.A.
                                                                                                                                                                                                                                                                                                                                                               INVENTION:
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NT RESIDUES IN
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                                                                                                                                                                                                                                                                  44 Binney Street
                                                                                                                                                                                                                                                                                                                                                                          NADLER, LEE M.
                                                                                                                            WordPerfect 5.0
                                                                                                                                                                                                                                                                                                                                                                                           FREEDMAN,
                                                                                                                                                                                                                                                                                                                                                                                                           FREEMAN, GORDON J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FINGEROTH, JOYCE D. GRIBBEN, JOHN G. NADLER, LEE M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WHITE, MICHAEL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LOMBARD, DAVID B. ZHOU, LIANG-JI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GIMMI, CLAUDE D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GRAY, GARY S.
                                                                                                                                                                                                                                                                                                                     DNA Encoding B7, A New Member Of The IgG Superfamily With Unique Expression On Activated And Neoplastic B Cells.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               11.7%;
26.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                      US/08153262
                                                                                                                                                                                                                                                                                                                                                                                         ARNOLD S.
                                                                                               US/08/153, 262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              36;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 177.5; DB 2;
Pred. No. 3.4e-10;
Prematches 92;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          25: From -37 to
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 306;
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NAME: HART, JULIA D. REGISTRATION NUMBER:

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US-08-153-262-4
                Query Match
Best Local S
Matches
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INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 306 amino acid
                                                                                                                                                                                                                                                                                                                                   PUBLICATION INFORMATION:
AUTHORS: FREEMAN, GORDON J.
AUTHORS: GRAY, GARY S.
AUTHORS: GIMMI, CLAUDE D.
AUTHORS: LOMBARD, DAVID B.
AUTHORS: ZHOU, LIANG-JI
AUTHORS: WHITE, MICHAEL
AUTHORS: FINGEROTH, JOYCE D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TELECOMMUNICATION INFORMATION: TELEPHONE: (203) 255-8900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MOLECULE TYPE:
DESCRIPTION:
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LOCATION: -37 to -1
IDENTIFICATION METHOD: similarity with known
IDENTIFICATION METHOD: sequence
OTHER INFORMATION: hydrophobic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NLECULE TYPE: protein
DESCRIPTION: B lymphocyte activation antigen; Ig
DESCRIPTION: superfamily member; T cell costimulatory signal
DESCRIPTION: via activation of CD28 pathways, binds to CD28+
DESCRIPTION: T cells, transmembrane protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NAME/KEY: Ig C-set domain LOCATION: 106 to 199 IDENTIFICATION METHOD: sin IDENTIFICATION METHOD: see
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NAME/KEY: intracellular (cytoplasmic) domain LOCATION: 236 to 269
IDENTIFICATION METHOD: similarity with known
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NAME/KEY:
LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: amino acid
Local Similarity 26.0
nes 57; Conservative
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                                                                                                                                                                                                                        JOURNAL:
                                                                                                                       RELEVANT RESIDUES IN SEQ ID NO:
                                                                                                                                          IN PRESS
                                                                                                                                                                                                                      Structure, Expression, and T Cell Costimulatory Activity Of The Murine Homologue Of The Human B Lymphocyte Activation Antigen B7
.: Journal of Experimental Medicine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        306 amino acids
                                                                                                                                                                                                                                                                                                 NADLER, LEE M.
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                     11.7%;
26.6%;
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    36;
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Score 177.5; DB 3
Pred. No. 3.4e-10;
36; Mismatches 92
                                                                                                                       4: From -37 to
                                          DB 3;
                                          Length 306;
    Indels
                                                                                                                         269
    29;
    Gaps
      11;
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US-08-479-744A-31
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Patent No. 6084067
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/280,757
FILING DATE: 26-JUL-1994
APPLICATION NUMBER: 08/109,393
FILING DATE: 28-WG-1993
APPLICATION NUMBER: 08/10,624
FILING DATE: 26-JULY-1993
APPLICATION NUMBER: 08/147,773
APPLICATION NUMBER: 08/147,773
FILING DATE: 3-NOV-1993
ATTORNEY/AGENT INFORMATION:
NAME: MANDERGENT NUMBER: 34 JULY 1993
ATTORNEY/AGENT NUMBER: 36 JULY 1993
ATTORNEY/AGENT NUMBER: 37 JULY 1993
ATTORNEY/AGENT NUMBER: 38 JULY 1993
ATTORNEY/AG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                         TELEFAX: (617) 227-59. INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                     MOLECULE TYPE:
DESCRIPTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0
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APPLICANT: Gray, Gary S.
TITLE OF INVENTION: Uses Therefor
NUMBER OF SEQUENCES: 55
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SOFTWARE: Patentin Release #1.0, Version #1.25 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TELECOMMUNICATION INFORMATION: TELEPHONE: (617) 227-7400
                                                                              FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE CHARACTERISTICS:
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NAME/KEY:
LOCATION:
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                                                                                                          DESCRIPTION:
DESCRIPTION:
                                                                                                                                                                                                                                                                                                       TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REFERENCE/DOCKET NUMBER: RPI-004CP3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NAME: Mandragouras, Amy E. REGISTRATION NUMBER: 36,207
                                                                                                                                                                                                                                                                                                                                                                              ENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FSWLENGRE-LPGINTTISODPESELYTISSOLDFNTTRNHTIKCLIKYGDA---HVSED 231
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         IYWQKHDKVVLSVIAGK--LKV-WPEYKNRT--LYDNTTY---SLIILG#VLSDRGTYSC
                                                                                                                                                                                                                                                                                                                                          : 306 amino acids amino acid
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                                                                                                          superfamily member; T cell costimulatory signal via activation of CD28 pathways, binds to CD28+ T cells, transmembrane protein
                                                                                                                                                                                                                    protein
B lymphocyte activation antigen;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                227-5941
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Patent No. Sequence 31,

l, Application US/08280757B
6130316

GENERAL INFORMATION:

APPLICANT:

Freeman, Gordon Nadler, Lee M.

Gordon J.

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RESULT 6
US-08-280-757B-31
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Best Local :
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IDENTIFICATION METHOD: sequen
PUBLICATION INFORMATION:
AUTHORS: FREEMAN, GORDON J.
AUTHORS: GRAY, GARY S.
AUTHORS: GRAY, GARY S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FEATURE:
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                                                                 232 FTWEKPPEDPPDSKNTLVLFGA---GFGAVITVV 262
                                                                                               225 VIPELPLAHPPNERTHLVILGAILLCLGVALTFI 258
                                                                                                                                                                                               120 VVQKKERGTYGVKHLALVKLSIKADFSTPN----ITESGNPSADTKRITCFASGGFPKPR
                                                                                                                                                             165 VIWTSSDHQVLSGKTTTTNSKREEKLFNVTSTLRINTTTNEIFYCTFRRLDPEENHTAEL 224
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NAME/KEY:
                                                                                                                                                                                                                                                           68 IYWQKHDKVVLSVIAGK--LKV-WPEYKNRT--LYDNTTY---SLIILGLVLSDRGTYSC 119
                                                                                                                                                                                                                                                                                Local Similarity
les 57; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TITLE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TITLE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NAME/KEY: intracellular (cytoplasmic) domain LOCATION: 236 to 269
IDENTIFICATION METHOD: similarity with known
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    OTHER INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AUTHORS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AUTHORS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AUTHORS:
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                                                                                                                                                                                                                                                                                                                                                                                                                            DATE: IN PRESS
RELEVANT RESIDUES IN SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                JOURNAL:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AUTHORS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AUTHORS:
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                                                                                                                                                                                                                             MI-----SYGGADYKRITVKVNAPYNKINQRILVVD---PVTSEHELTCQAE-GYPKAE 164
                                                                                                                              FSWLENGRE-LPGINTTISQDPESELYTISSQLDFNTTRNHTIKCLIKYGDA---HVSED 231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    : GRIBBEN, JOHN G.
: NADLER, LEE M.
Structure, Expression, and T Cell Cc Activity Of The Murine Homologue Of Lymphocyte Activation Antigen B7
Lymphocyte Activation Antigen B7
Journal of Experimental Medicine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ZHOU, LIANG-JI
WHITE, MICHAEL
                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FINGEROTH, JOYCE D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LOMBARD, DAVID B.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   transmembrane domain 211 to 235
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                                                                                                                                                                                                                                                                                                                                              11.7%; Score 177.5; DB 3 26.6%; Pred. No. 3.4e-10;
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                                                                                                                                                                                                                                                                                                                           36; Mismatches
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                                                                                                                                                                                                                                                                                                                              92;
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                                                                                                                                                                                                                                                                                                                              Indels
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                                                                                                                                                                                                                                                                                                                           Gaps
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TELEFAX: (617) 227-59 INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                     MOLECULE TYPE:
DESCRIPTION:
DESCRIPTION:
DESCRIPTION:
DESCRIPTION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CLASSIFICATION: 435
PRIOR APPLICATION DATA:
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ADDRESSEE: LAHIVE & COCKFIELD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: Greenfield, Edward
TITLE OF INVENTION: No. 6130316el CTLA4/CD28 Lig-
TITLE OF INVENTION: Uses Therefor
                    FEATURE
                                                                                                                                                                                             FEATURE:
                                                                                                                                                                                                                                                                                  FEATURE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER READABLE FORM: MEDIUM TYPE: Floppy
                                                                                                         FEATURE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: FILING DATE: 26-JULY APPLICATION NUMBER: FILING DATE: 19-AUG-
                                                                     NAME/KEY:
LOCATION:
                                                                                                                  LOCATION: 211 to 235 IDENTIFICATION METHOD: IDENTIFICATION METHOD:
                                                                                                                                                                                                                            NAME/KEY: extracellular domain LOCATION: 1 to 210 IDENTIFICATION METHOD: similar
                                                                                                                                                                                                                                                                                                        NAME/KEY: signal sequence
LOCATION: -37 to -1
IDENTIFICATION METHOD: similarity with known
IDENTIFICATION METHOD: sequence
                                                                                                                                                                                                                                                                                                  OTHER INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NAME: Mandragouras, Amy E.
REGISTRATION NUMBER: 36,20
REFERENCE/DOCKET NUMBER: H
   NAME/KEY:
                                                                                                                                                          LOCATION:
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                                    IDENTIFICATION METHOD:
                                                      IDENTIFICATION
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gray, Gary S.
                                                                                                                                                          transmembrane domain 211 to 235
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IBM PC compatible
SYSTEM: PC-DOS/MS-DOS
                                                    intracellular (cytoplasmic) domain 236 to 269 cincle with known
Ig V-set domain
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                                                                                                                                                                                                                                                                                                                                                                                            protein

B lymphocyte activation antigen; Ig
superfamily member; T cell costimulatory signal
via activation of CD28 pathways, binds to CD28+
T cells, transmembrane protein
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19-AUG-1993
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; DATE: IN PRESS; RELEVANT RESIDUES IN SEQ ID US-08-280-757B-31
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                                                                                                                                                                                                                                                                                                          GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PUBLICATION INFORMATION:
AUTHORS: FREEMAN, GORDON J.
AUTHORS: GRAY, GARY S.
AUTHORS: GIMMI, CLAUDE D.
AUTHORS: LOMBARD, DAVID B.
AUTHORS: ZHOU, LIANG-JI
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
                                                                                                                                                                               APPLICANT: Nadler, I
TITLE OF INVENTION:
NUMBER OF SEQUENCES:
                                                                                                                                                            CORRESPONDENCE ADDRESS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            120 VVQKKERGTYGVKHLALVKLSIKADFSTPN----ITESGNPSADTKRITCFASGGFPKPR
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LOCATION:
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                                                                                                         STREET: 60 St
CITY: Boston
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nes 57; Conserv
                                                                      COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 68 IYWQKHDKVVLSVIAGK--LKV-WPEYKNRT--LYDNTTY---SLIILGLVLSDRGTYSC 119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    55 VYWEMEDKNIIQFVHGEEDLKVQHSSYRQRARLLKDQLSLGNAALQITDVKLQDAGVYRC 114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AUTHORS:
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                                                                                                                                               ADDRESSEE:
                                                         02109
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RS: GRIBBEN, JOHN G.

RS: NADLER, LEE M.

Structure, Expression, and T Cell Cost

Activity Of The Murine Homologue Of Th

Lymphocyte Activation Antigen B7

AL: Journal of Experimental Medicine
                                                                                            Massachusetts
                                                                                                                         60 State Street, Suite 510
                                                                         USA
                                                                                                                                                                                                                    Nadler, Lee M.
                                                                                                                                                                                                                                                   Baskar, Sivasubramanian
Glimcher, Laurie H.
                                                                                                                                                                                                                                    Freeman, Gordon J.
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106 to 199
                                                                                                                                               LAHIVE & COCKFIELD
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26.6%;
                                                                                                                                                                                                 Tumor Cells With Increased Immunogenicity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         36;
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TELECOMMUNICATION INFORMATION: TELEPHONE: (617) 227-7400 TELEPAX: (617) 227-5941 INFORMATION FOR SEQ ID NO: 4:
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DESCRIPTION:
DESCRIPTION:
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SOFTWARE: Patentin Rel
CURRENT APPLICATION DATA:
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AUTHORS: FREEMAN, GORDON J.
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               Lymphocyte Activation Antigen B7 : Journal of Experimental Medicine
                                 Structure, Expression, and T Cell Costimulatory Activity Of The Murine Homologue Of The Human B Lymphocyte Activation Antigen B7
                                                                                                                                                                 GRAY, GARY S.
GIMMI, CLAUDE D.
LOMBARD, DAVID B.
                                                                                  GRIBBEN, JOHN G. NADLER, LEE M.
                                                                                                                                    ZHOU, LIANG-JI
WHITE, MICHAEL
                                                                                                                    FINGEROTH, JOYCE D.
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B lymphocyte activation antigen; Ig
B usperfamily member; T cell costimulatory signal
via activation of CD28 pathways, binds to CD28+
T cells, transmembrane protein
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n Release #1.0, Version #1.25
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Patent No. 5858776
GENERAL INFORMATION
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                                                                                                                         TELEFAX: (617) 227-5941
INFORMATION FOR SEQ ID NO: 2:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER READABLE FORM: MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                               PRIOR APPLICATION DATA:
APPLICATION NUMBER:
FILING DATE:
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NAME: Mandragouras, Amy E.
REGISTRATION NUMBER: 36,207
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                                        MOLECULE TYPE:
                                                                                                           SEQUENCE CHARACTERISTICS:
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B cell activation antigen; natural ligand
for CD28 T cell surface antigen; transmembrane protein
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26.6%;
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IDENTIFICATION METHOD: amino terminal sequencing of IDENTIFICATION METHOD: soluble protein
OTHER INFORMATION: hydrophobic
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LOCATION:
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LOCATION:
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LOCATION: 209 to 235
IDENTIFICATION METHOD:
IDENTIFICATION METHOD:
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LOCATION:
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177 to 179
TION METHOD: similarit
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173 to 175
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152 to 154
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                                            Ig C-set domain 105 to 202
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192 to 194
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FREEMAN, GORDON J.

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US-08-456-104-6
; Sequence 6, Application US/08456104
; Patent No. 5861310
; GENERAL INFORMATION:
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Best Local 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches
                                                                                                                                                                                                                                                                                                                   APPLICANT: Freeman, Gordon J.
APPLICANT: Nadler, Lee M.
APPLICANT: Gray S.
APPLICANT: Gray S.
TITLE OF INVENTION: TUMOR CELLS MODIFIED TO EXPRESS B7-2 AND B7-3 WITH INCREASED NUMBER OF SEQUENCES: 8
CORRESPONDENCE ADDRESS:
                               PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/10
FILING DATE: 26-JUL-1993
                                                                                                                                          SOFTWARE: PatentIn Release #1.0, Version CURRENT APPLICATION DATA:
                                                                                                                                                                                                                 COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          256 GIFVIC---CLTYCFAPRCRERR 275
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    147
                                                                                                                                                                              COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
APPLICATION NUMBER: 08/109,393; APPLICATION NUMBER: 19-AUG-1993
                                                                                          CLASSIFICATION: 424
                                                                                                          FILING DATE:
                                                                                                                         APPLICATION NUMBER:
                                                                                                                                                                                                                                                                       COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          85
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AUTHORS: WHITMAN, JAMES F.
AUTHORS: NADLER, LEE M.
TITLE: B7, A New Member Of The Ig Superfamily With
TITLE: Unique Expression On Activated And Neoplastic B Cells
JOURNAL: The Journal of Immunology
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        90
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         KEVATLSCGHNVSVE-----ELAQTRIYWQKEKKMVLTMMSGDMNIWPEYKN---- 89
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ISDFEI----PTSNIRRIICSTSGGFPEPHLSWLENGEE-LNAINTTVSQDPETELYAVSS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   -RTIFD--ITNNLSIVILALRPSDEGTYECVVLKYEKDAFKREHLAEVTLSVKADFPTPS 146
                                                                                                                                                                                                                                                      02109
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15-OCT-1989
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SEGIL, JEFFREY M.
LEE, GRACE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 11.4%;
22.1%;
                                                   08/101,624;
                                                                                                                         US/08/456,104
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Pred. No. 1.1e-09;
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RESULT 10
US-08-101-624-23
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Sequence 23, Applic
Sequence 23, Applic
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APPLICANT: Freema
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TELECOMMUNICATION INFORMATION:
TELEPHONE: (617) 227-74 00
TELEFAX: (617) 227-5941
INFORMATION FOR SEQ ID NO: 6:
SEQUENCE CHARACTERISTICS:
                                                                                                    FILING DATE: 26-JUL-
CLASSIFICATION: 514
PRIOR APPLICATION DATA:
                                                                                                                                                                                  SOFTWARE: PatentIn Release #1.0, CURRENT APPLICATION DATA:
                                                                                                                                                                                                                         COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IHM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                              CORRESPONDENCE ADDRESS:
ADDRESSEE: LAHIVE & COCKFIELD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Freeman, Gordon J.
APPLICANT: Nadler, Lee M.
APPLICANT: Gray, Gary S.
TITLE OF INVENTION: No. 5942607el CTLA4/CD28 Ligands and
TITLE OF INVENTION: Uses Therefor
                     ATTORNEY/AGENT INFORMATION: NAME: Mandragouras, Amy
                                                                                                                                                                                                                                                                                                                                                                                                                                                      NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  196
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CITY: B
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                                                               FILING DATE:
  REGISTRATION NUMBER:
                                                                                APPLICATION NUMBER:
                                                                                                                                                                 APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                               COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           85 ARLLKDQLSLGNAALQITDVKLQDAGVYRCMI-SYGGADYKR-----ITVKVNAPYNK 136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    43 KEVATLSCGHNVSVE-----ELAQTRIYWQKEKKMVLTMMSGDWNIWPEYKN----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          25 KDLYVVEYGSNMTIECKFPVEKQLDLAALIVYWEMEDKNIIQFVHGEIDLKVQHSSYRQR 84
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nes 58; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GIFVIC---CLTYCFAPRCRERR 275
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                                                                                                                                                                                                                                                                                                              02109
Mandragouras, Amy E. RATION NUMBER: 36,207
                                                                                                                                                                                                                                                                                                                                                                     Boston
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                                                                                                                                                                                                                                                                                                                                                    Massachusetts
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                                                                                                                                                                                                                                                                                                                                                                                           60 State Street,
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                                                                                                                         26-JUL-1993
N: 514
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22.1%; Pred. No. 1.1e-09;
56. Mismatches 97;
                                                                                                                                                                 US/08/101,624
                                                                                                                                                                                                                                                                                                                                                                                           Suite 510
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                                                                                                                                                                                                        Version
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244

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TELEFAX: (617) 227-594
INFORMATION FOR SEQ ID NO:
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LENGTH: 288 amino acid
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TELECOMMUNICATION INFORMATION:
TELEPHONE: (617) 227-7400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FEATURE:
                                                                                                                                          FEATURE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NAME/KEY:
   NAME/KEY: N-linked glycosylation LOCATION: 198 to 200 IDENTIFICATION METHOD: similarity IDENTIFICATION METHOD: sequence
                                                                           NAME/KEY: N-linked glycosylation LOCATION: 192 to 194 IDENTIFICATION METHOD: similarit IDENTIFICATION METHOD: sequence
                                                                                                                                                                   NAME/KEY: N-linked glycosylation LOCATION: 177 to 179 IDENTIFICATION METHOD: Similarit
                                                                                                                                                                                                                                                                                                         NAME/KEY: N-linked gl;
LOCATION: 152 to 154
IDENTIFICATION METHOD:
IDENTIFICATION METHOD:
                                                                                                                                                                                                                                                                                                                                                                                 NAME/KEY: N-linked glycosylation LOCATION: 64 to 66 IDENTIFICATION METHOD: similarit. IDENTIFICATION METHOD: sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NAME/KEY: N-linked glycosylation LOCATION: 19 to 21 IDENTIFICATION METHOD: similarity IDENTIFICATION METHOD: sequence
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LOCATION:
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B cell activation antigen;
for CD28 T cell surface ant
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US-08-751-767A-6
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FEATURE:
                                                                                                                                                                                                                 APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                               196
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LOCATION:
                                                  COUNTRY: U
                                                                                           STREET: 1100 NO CITY: ARLINGTON
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                                                                              STATE:
                                                                                                                          ADDRESSEE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AUTHORS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AUTHORS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AUTHORS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AUTHORS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AUTHORS:
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                                                              USA
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GENERAL INFORMATION:
                            CORRESPONDENCE ADDRESS:
                                             APPLICANT: GRANT, HUGI
APPLICANT: MACDONALD,
TITLE OF INVENTION: II
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                                                                                                                                                                                                                                                                          245 GAILLCLGVALTFIF -- RLRKGR 265
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              25 KDLYVVEYGSNMTIECKFPVEKQLDLAALIVYWEMEDKNIIQFVHGEEDLKV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PAGES: 2714-2722
DATE: 15-OCT-1989
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RELEVANT RESIDUES IN SEQ ID NO:
                                                                                                                                                                                                                                           GIFVIC---CLTYCFAPRCRERR 275
                                                                                                                                                                                                                                                                                                                                           TLRINTTNEIFYC-----
                                                                                                                                                                                                                                                                                                                                                                          ISDFEI---PTSNIRRIICSTSGGFPEPHLSWLENGEE-LNAINT
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                                                                                                                                                                                                                                                                                                          KLDFNMTTNHSFMCLIKYGHLRVNQTFNWNTTKQEHFPDNLLPSWAI---
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        l Similarity
58; Conserv
                                                                                                                                                            Application US/08751767A
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B7, A New Member Of The Ig Superfamily With
Unique Expression On Activated And Neoplast
: The Journal of Immunology
1100 NORTH GLEBE ROAD
                                                                                              GRANT, HUGH
                                                                                                             ANDERSON,
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LEE, GRACE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FREEDMAN, GORDON J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ig C-set domain 105 to 202
                                                                INTERLUKIN-12 FUSION PROTEIN
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22.1%;
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                                                                                                               ROBERT J.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 172; DB 2; 1
Pred. No. 1.1e-09;
6; Mismatches 97;
                                                                                                                                                                                                                                                                                                                                          -TFRRLDPEENHTAELVIPELELAHPPN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      23: From
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GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity
Matches 58; Conserv
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                                                                                                                                                                                                                                                                                                                                                                        APPLICANT:
                                                                                                                                                                                                                                                                       APPLICANT: NADLER, LEE M.
TITLE OF INVENTION: DNA E.
TITLE OF INVENTION: Of THE
TITLE OF INVENTION: Activ.
NUMBER OF SEQUENCES: 4
                                                                                                                                                                                                                                    CORRESPONDENCE ADDRESS:
ADDRESSEE: The Dana-Farber Cancer Institute
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TELECOMMUNICATION INFORMATION: TELEPHONE: 7038164091
TELEFAX: 7038164100
                    CURRENT APPLICATION DATA:
                                                                                                                 COMPUTER READABLE FORM:
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LENGTH: 288 amino acid
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ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CURRENT APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            147
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 196 TLRINTTINEIFYC------TERRLDPEENHTAELVIPELPLAHPPNERTHLVIL 244
                                  COMPUTER: IBM Personal Sys
OPERATING SYSTEM: MS/DOS
SOFTWARE: WordPerfect 5.0
                                                      MEDIUM TYPE: Diskette, 3.50 inch, COMPUTER: IBM Personal System 2; MOPERATING SYSTEM: MS/DOS
    APPLICATION
                                                                                                                                                         COUNTRY:
                                                                                                                                                                              STATE:
                                                                                                                                                                                                                STREET:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REFERENCE/DOCKET NUMBER: 11
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                -RTIFD--ITNNLSIVILALRPSDEGTYECVVLKYEKDAFKREHLAEVTLSVKADFPTPS 146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             KEVATLSCGHNVSVE-----ELAQTRIYWQKEKKMVLTMMSGDMNIWPEYKN----
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                                                                                                                                       02115
                                                                                                                                                                                                Boston
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                                                                                                                                                                            Massachusetts
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Application US/08153262
                                                                                                                                                                                                              44 Binney Street
                                                                                                                                                         U.S.A.
                                                                                                                                                                                                                                                                                                                                                                      FREEDMAN, ARNOLD S.
                                                                                                                                                                                                                                                                                                                                                                                          FREEMAN, GORDON J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
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                                                                                                                                                                                                                                                                                       DNA Encoding B7, A New Member Of The IgG Superfamily With Unique Expression On Activated And Neoplastic B Cells.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      11.4%; Score 172; DB 2; Length 288; 22.1%; Pred. No. 1.1e-09; tive 56; Mismatches 97; Indels
US/08/153, 262
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                                                                          , 720kb storage
Model 30
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TELEPHONE: (203) 255-8
TELEFAX: (203) 259-284
INFORMATION FOR SEQ ID NO:
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DESCRIPTION:
DESCRIPTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FILING DATE: 28-AUG-1991
ATTORNEY/AGENT INFORMATION:
NAME: HART, JULIA D.
REGISTRATION NUMBER: 33132
                                                                                                                                                                                                                                                     FEATURE
                                                                                                                                                                                                                                                                                                                                    FEATURE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FEATURE:
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LENGTH: 288 amino acids
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                                                                                                                                                                                                                                                                NAME/KEY: N-linked gly LOCATION: 64 to 66 IDENTIFICATION METHOD: DENTIFICATION METHOD:
                                                                                                                                           NAME/KEY:
LOCATION:
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 NAME/KEY:
                               IDENTIFICATION METHOD:
                                               IDENTIFICATION
                                                               LOCATION:
                                                                            NAME/KEY:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LOCATION: 1 to 208 IDENTIFICATION METHOD: IDENTIFICATION METHOD:
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N-linked glycosylation
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177 to 179
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55 to 57
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173 to 175
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152 to 154
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B cell activation antigen; natural ligand
for CD28 T cell surface antigen; transmembrane protein
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RESULT 13
US-08-479-744A-29
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                                                                                                                        Sequence 29, Application US/08479744A Patent No. 6084067 GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity
               APPLICANT: Freeman, Gordon J.
APPLICANT: Nadler, Lee M.
APPLICANT: Gray, Gary S.
TITLE OF INVENTION: No. 6084067el CTLA4/CD28 Ligands and
TITLE OF INVENTION: Uses Therefor
NUMBER OF SEQUENCES: 55
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PUBLICATION INFORMATION:
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CORRESPONDENCE ADDRESS:
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                                                                                                                                                                                                                                                                                                                                203 KLDFNMTTNHSFMCLIKYGHLRVNQTFNWNTTKQEHFPDNLLPSWAI---
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AUTHORS: NADLER, LEE M.
TITLE: B7. A New Member Of The Ig Superfamily With
TITLE: Unique Expression On Activated And Neoplast
JOURNAL: The Journal of Immunology
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 IDENTIFICATION METHOD:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      25 KDLYVVEYGSNMTIECKFPVEKQLDLAALIVYWEMEDKNIIQFVHGEEDLKVQHSSYRQR 84
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ISSUE: 8
PAGES: 2714-2722
DATE: 15-OCT-1989
RELEVANT RESIDUES IN SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AUTHORS:
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                                                                                                                                                                                                                                                           GIFVIC---CLTYCFAPRCRERR 275
                                                                                                                                                                                                                                                                                          GAILLCLGVALTFIF--RLRKGR 265
                                                                                                                                                                                                                                                                                                                                                                 TLRINTTTNEIFYC-----TFRRLDPEENHTAELVIPELPLAHPPNERTHLVIL 244
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LEE, GRACE
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198 to 200
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22.1%;
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Pred. No. 1.1e-09;
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                                                                                                                                                                                                                                                                                                                                -TLISVN 255
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INFORMATION FOR SEQ ID NO:
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MOLECULE TYPE:
DESCRIPTION:
DESCRIPTION:
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LENGTH: 288 amino acid
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ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SOFTWARE: PatentIn Release #1.0, Version #1.25 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TELEPHONE: (617) 227-7400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CLASSIFICATION: 435 PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER READABLE FORM:
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STREET: 60
CITY: Bost
STATE: Mas
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FILING DATE: 26-JULY-19
APPLICATION NUMBER: 08/
FILING DATE: 3-NOV-1993
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                                                                                                                                                                                                                                                                                                                          NAME/KEY: transmembrane domain
LOCATION: 209 to 235
IDENTIFICATION METHOD: similar:
IDENTIFICATION METHOD: sequence
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                                                                                                                                                                                                                                                      NAME/KEY: intracellular domain LOCATION: 236 to 254 IDENTIFICATION METHOD: similar
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NAME/KEY: signal sequence LOCATION: -34 to -1
                                                                                                       NAME/KEY:
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                 NAME/KEY:
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                                                                    LOCATION: 55 to 57 IDENTIFICATION METHOD:
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                                                                                                                                                                                 N-linked glycosylation 19 to 21
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IBM PC compatible
SYSTEM: PC-DOS/MS-DOS
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N-linked glycosylation 64 to 66
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B cell activation antigen; natural ligand
for CD28 T cell surface antigen; transmembrane protein
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Best Local S
Matches 58
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mes 58; Conserv
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                                                                                                                                                                                     KDLYVVEYGSNMTIECKFPVEKQLDLAALIVYWEMEDKNIIQFVHGEEDLKVQHSSYRQR 84
                              ISDFEI----PTSNIRRIICSTSGGFPEPHLSWLENGEE-LNAINTTVSQDPETELYAVSS
                                                                                                                           ARLLKDQLSLGNAALQITDVKLQDAGVYRCMI-SYGGADYKR-----ITVKVNAPYNK 136
                                                             INQRILVVDPVTSEHELTCOAE-GYPKAEVIWTSSDHQVLSGKTTTTNSKREEKLFNVTS 195
                                                                                            -RTIFD--ITNNLSIVILALRPSDEGTYECVVLKYEKDAFKREHLAEVTLSVKADFPTPS 146
                                                                                                                                                                                                                                                                                                                                   2714-2722
15-OCT-1989
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B7, A New Member Of The Ig Superfamily With
Unique Expression On Activated And Neoplastic B Cells
L: The Journal of Immunology
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FREEMAN, GORDON J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LEE, GRACE
                                                                                                                                                                                                                                                                                                                                                                                                                                                          WHITMAN,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ig C-set domain
105 to 202
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173 to 175
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152 to 154
                                                                                                                                                                                                                                     11.4%; Score 172; DB 3; 22.1%; Pred. No. 1.1e-09;
                                                                                                                                                                                                                                                                                                                                                                                                                                                          JAMES F.
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TFRRLDPEENHTAELVIPELPLAHPPNERTHLVIL 244
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                                                                                                                                                                                                                                                                                     MOLECULE TYPE:
DESCRIPTION:
                                                                                                                                                                                                                                                                                                                                                                                                                              NAME: Mandragouras, Amy E.
REGISTRATION NUMBER: 36,207
REFERENCE/DOCKET NUMBER: RPI-004CP2
TELECOMMUNICATION INFORMATION:
TELEPHONE: (617) 227-7400
TELEFAX: (617) 227-5941
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                                                                        FEATURE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: 08/1/FILING DATE: 3-NOV-1993
ATTORNEY/AGENT INFORMATION:
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APPLICATION NUMBER: (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TITLE OF INVENTION: No. 6130316el CTLA4/CD28 Ligands and TITLE OF INVENTION: Uses Therefor
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                                   NAME/KEY:
LOCATION:
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                                                                                     LOCATION: 1 to 208 IDENTIFICATION METHOD: IDENTIFICATION METHOD:
                                                                                                                                                                        IDENTIFICATION METHOD: amino terminal sequencing IDENTIFICATION METHOD: soluble protein OTHER INFORMATION: hydrophobic
                                                                                                                                                                                                                               NAME/KEY: signal sequence LOCATION: -34 to -1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FILING DATE: 26-JU
APPLICATION NUMBER:
FILING DATE: 19-AU
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OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
                                                                                                                                            NAME/KEY:
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IDENTIFICATION METHOD: IDENTIFICATION METHOD:
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Greenfield, Edward
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Nadler, Lee
                                                                                                                                                                                                                                                                                                                                          linear
                                 transmembrane domain 209 to 235
                                                                                                                                            extracellular domain
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B cell activation antigen; natural ligand
for CD28 T cell surface antigen; transmem
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                                                                                                                                                                                                                                                                                                                                                                                                             NAME/KEY:
LOCATION:
              PAGES: 2714 ...
PAGES: 2714 ...
PATE: 15-OCT-1989
                                                                                                  AUTHORS: NADLER, LEE M.
TITLE: B7, A New Member Of The Ig Superfamily With
TITLE: Unique Expression On Activated And Neoplast
JOURNAL: The Journal of Immunology
                                                                                                                                                                                                                                                                                                 NAME/KEY: Ig C-set domain LOCATION: 105 to 202 IDENTIFICATION METHOD: Sir
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LOCATION:
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                                                                                                                                                                          WHITMAN,
                                                                                                                                                                                               LEE, GRACE
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GENERAL INFORMATION:
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                                                                                                                                TELEFAX: (617) 227-594
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                              REFERENCE/DOCKET NUMBER: RP TELECOMMUNICATION INFORMATION: TELEPHONE: (617) 227-7400
                                                                                                                                                                                                                                                                                                                                                                       CURRENT APPLICATION DATA: APPLICATION NUMBER: US
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                                                                                                                                                                                                                                     NAME: Mandragouras, Amy REGISTRATION NUMBER: 36
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                             DESCRIPTION:
DESCRIPTION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                KEVATLSCGHNVSVE-----ELAQTRIYWQKEKKMVLTMMSGDMNIWPEYKN----
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           -RTIFD--ITNNLSIVILALRPSDEGTYECVVLKYEKDAFKREHLAEVTLSVKADFPTPS | 146
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     , Application US/09159135 6149905
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                                                                                                 amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Massachusetts
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           E: LAHIVE & COCKFIELD 60 State Street, Suite
                                                                                                               288 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Nadler, Lee M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Baskar, Sivasubramanian
Glimcher, Laurie H.
Freeman, Gordon J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ostrand-Rosenberg, Suzanne
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                                                                                                                                                                                                                                                                                                                                                                                                         PatentIn Release #1.0, Version #1.25
                                                                                  linear
                             protein
B cell activation antigen; natural ligand
for CD28 T cell surface antigen; transmembrane
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Floppy disk
                                                                                                                                                                227-5941
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Tumor Cells With Increased Immunogen
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22.1%;
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Pred. No. 1.1e-09;
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signal sequence

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FEATURE:
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                                                       PUBLICATION INFORMATION:
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NAME/KEY: N-linked glycosylation
LOCATION: 177 to 179
IDENTIFICATION METHOD: similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FEATURE:
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                                                                      NAME/KEY: Ig C-set domain LOCATION: 105 to 202 IDENTIFICATION METHOD: sin IDENTIFICATION METHOD: sec
                                                                                                                                                                                                   NAME/KEY: Ig V-set domain LOCATION: 1 to 104
                                                                                                                                                                                                                                                         NAME/KEY: N-linked glycosylation LOCATION: 198 to 200 IDENTIFICATION METHOD: similarity IDENTIFICATION METHOD: sequence
                                                                                                                                                                                                                                                                                                                                                NAME/KEY: N-linked glycosylation LOCATION: 192 to 194 IDENTIFICATION METHOD: similarity IDENTIFICATION METHOD: sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NAME/KEY: N-linked glycosylation LOCATION: 173 to 175 IDENTIFICATION METHOD: similarity IDENTIFICATION METHOD: sequence
                   AUTHORS:
                                       AUTHORS:
                                                                                                                                                                 IDENTIFICATION METHOD: IDENTIFICATION METHOD:
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LOCATION 152 to 154
IDENTIFICATION METHOD: similarity
IDENTIFICATION METHOD: sequence
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 AUTHORS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NAME/KEY: transmembrane domain LOCATION: 209 to 235 IDENTIFICATION METHOD: similar
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FREEDMAN, GORDON J. FREEDMAN, ARNOLD S. SEGIL, JEFFREY M.
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; DATE: 15-OCT-1989

; RELEVANT RESIDUES IN SEQ ID NO:

US-09-159-135-2
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Best Local
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256
                                   245
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VOLUME:
                                                                                                                                                                                                                  90
                                                                                                                                                                                                                                                  85 ARLLKDQLSLGNAALQITDVKLQDAGVYRCMI-SYGGADYKR-----ITVKV
                                                                                                                                                                                                                                                                                     43
                                                                                                                                                                                                                                                                                                          25 KDLYVVEYGSNMTIECKFPVEKQLDLAALIVYWEMEDKNIIQFVHGEEDLKVQH SYRQR 84
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AUTHORS: LEE, GRACE
AUTHORS: WHITMAN, JAMES F.
AUTHORS: WHITMAN, JAMES F.
AUTHORS: NADLER, LEE M.
TITLE: B7, A New Member Of The Ig Superfamily With
TITLE: Unique Expression On Activated And Neoplastic B Cells
JOURNAL: The Journal of Immunology
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ISSUE:
GIFVIC---CLTYCFAPRCRERR 275
                                 GAILLCLGVALTFIF -- RLRKGR 265
                                                                   KLDFNMTTNHSFMCLIKYGHLRVNQTFNWNTTKQEHFPDNLLPSWAI---
                                                                                                     TLRINTTTNEIFYC-----TFRRLDPEENHTAELVIPELPLAHPPNERTHLVIL 244
                                                                                                                                                                                                                                                                                    KEVATLSCGHNVSVE-----ELAQTRIYWQKEKKMVLTMMSGDMNIWPEYIN---- 89
                                                                                                                                                                          INQRILVVDPVTSEHELTCQAE-GYPKAEVIWTSSDHQVLSGKTTTTNSKREEKLFNVTS 195
                                                                                                                                                                                                                -RTIFD--ITNNLSIVILALRPSDEGTYECVVLKYEKDAFKREHLAEVTLSVKA
                                                                                                                                         ISDFEI---PTSNIRRIICSTSGGFPEPHLSWLENGEE-LNAINTTVSQDPETELYAVSS 202
                                                                                                                                                                                                                                                                                                                                                             1 Similarity
58; Conserv
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Pred. No. 1.1e-09;
6; Mismatches 97
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Search completed: March 17, 2001, 09:44:51
Job time: 90 sec

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Result
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           Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
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1: /cgn2_6/ptodata/2;

2: /cgn2_6/ptodata/2;

3: /cgn2_6/ptodata/2;

4: /cgn2_6/ptodata/2;

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/cgn2_6/ptodata/2/iaa/5B_COMB.pep:*
/cgn2_6/ptodata/2/iaa/ECTUS_COMB.pep:*
/cgn2_6/ptodata/2/iaa/backfiles1.pep:*
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US-08-153-262-4
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US-08-280-7578-31
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US-08-280-7578-31
US-08-280-7578-2
PCT-US95-02576-17
PCT-US95-02576-17
PCT-US94-09642-2
US-08-111-624-2
US-08-479-7448-2
US-08-280-7578-2
US-08-280-7578-2
US-08-147-772-2
US-08-111-624-3
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GENERAL INFORMATION:
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Sequence 45, Appl	Sequence 45, Appl		Sequence 10, Appl	10,	9		275	13,	21,	23,	23,	4	Sequence 5, Appli		6	Sequence 2, Appli

ALIGNMENTS

4, Application US/08147772
5. 5858776

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TELECOMMUNICATION INFORMATION:
TELEPHONE: (617) 227-7400
TELEPHAX: (617) 227-5941
INFORMATION FOR SEQ ID NO: 4:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                        MOLECULE TYPE: protein

DESCRIPTION: B lymphocyte activation antigen; Ig

DESCRIPTION: superfamily member; T cell costimulatory

DESCRIPTION: via activation of CD28 pathways, binds to

DESCRIPTION: T cells, transmembrane protein
                                                                                                                                                                        SEQUENCE CHARACTERISTICS:
LENGTH: 306 amino acids
TYPE: amino acid
                                                                                                                                                                                                                                                                                                                   FILING DATE:
ATTORNEY/AGENT INFORMATION:
NAME: Mandragouras, Amy E.
REGISTRATION NUMBER: 36,207
REFERENCE/DOCKET NUMBER: RP:
                                                                                                                                                                                                                                                                                                                                                                                                                  FILING DATE:
CLASSIFICATION: 424
PRIOR APPLICATION DATA:
APPLICATION NUMBER:
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ADDRESSEE: LAHIVE & COCKFIELD
STREET: 60 State Street, Suite
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: Ostrand-Rosenberg, Suzanne APPLICANT: Baskar, Sivasubramanian APPLICANT: Glimcher, Laurie H. APPLICANT: Freeman, Gordon J. APPLICANT: Nadler, Lee M. TITLE OF INVENTION: Tumor Cells With NUMBER OF SEQUENCES: 4
                                       FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SOFTWARE: Patentin Rel CURRENT APPLICATION DATA:
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CITY: BC
STATE: M
COUNTRY:
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Best Local S
Matches 63
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AUTHORS: FREEMAN, GORDON J.
AUTHORS: GRAY, GARY S.
AUTHORS: GIMMI, CLAUDE D.
AUTHORS: LOMBARD, DAVID B.
AUTHORS: ZHOU, LIANG-JI
AUTHORS: WHITE, MICHAEL
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269
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LOCATION:
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les 63; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AUTHORS:
                                                                                                VFYCTFWRSQPGQNHTAELIIPELPATHPPQNRTHWVLLGSILLFLIVVSTVLLFLRKQV
                                                                                                                                 SADTKRITCFASGGFPKPRFSWLENGRE-LPGINTTISQDPESELYTISSQLDFNTTRNH
                                                                                                                                                    ATSEHELICQAE-GYPEAEVIWTNSDHQPVSGKRSVTTSRTEGMLLNVTSSLRVNATAND 204
                                                                                                                                                                                                 YDNTTYSLIILGLVLSDRGTYSCVVQKKERGTYGVKHLALVKLSIKADFSTPNITESGNP
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                                                                                                                                                                                                                                                                                              VTMECRF -- PVERELDLLALVVYWEKEDEQVIQFVAGEEDLKPQHSNFRGRASLPKDQLL 93
                               RMLDVEKCGVEDTSSKNRNDTQFE
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Activity Of The Murine Homologue Of
Lymphocyte Activation Antigen B7
: Journal of Experimental Medicine
KCFCKHRSCFRRNEASRE
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NADLER, LEE M.
                                                                                                                                                                                                                                                                                                                                   Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 306 amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NAME: Mandragouras, Amy E.
REGISTRATION NUMBER: 36,207
REFERENCE/DOCKET NUMBER: RPI-
TELECOMMUNICATION INFORMATION:
TELEPHONE: (617) 227-7400
TELEPAX: (617) 227-5941
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IEM PC COMPATIBLE
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0,
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: 08/101,624;
FILING DATE: 26-JUL-1993;
APPLICATION NUMBER: 08/109,393;
APPLICATION NUMBER: 19-AUG-1993
ANTORNEY/AGENT INFORMATION: F
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PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CORRESPONDENCE ADDRESS:
ADDRESSEE: LAHIVE & COCKFIELD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: Nadler, Lee M.
APPLICANT: Gray, Gary S.
TITLE OF INVENTION: TUMOR CELLS MODIFIED TO EXPRESS B7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NUMBER OF SEQUENCES:
                                                                                                                                       157
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269
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                                                                  TIKCLI---KYGDAHVSEDFTWEKPPEDPPDSKNTLVLFGAGFGAVITVVVIVVII----
                                                                                                                                                                                                                                               KGNA--ALQITDVKLQDAGVYCCII-----SYGGADYKRITLKVNAPYRKINQRISVDP
                               RMLDVEKCGVEDTSSKNRNDTQFE
                                                                                                  VFYCTFWRSQPGQNHTAELIIPELPATHPPQNRTHWVLLGSILLFLIVVSTVLLFLRKQV 264
                                                                                                                                         SADTKRITCFASGGFPKPRFSWLENGRE-LPGINTTISQDPESELYTISSQLDFNTTRNH
                                                                                                                                                                          ATSEHELICQAE-GYPEAEVIWTNSDHQPVSGKRSVTTSRTEGMLLNVTSSLRVNATAND
                                                                                                                                                                                                            YDNTTYSLIILGLVLSDRGTYSCVVQKKERGTYGVKHLALVKLSIKADESTPNITESGNP
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                                                                                                                                                                                                                                                                                                                                                                                                                                                               protein
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23.9%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Release #1.0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US/08/456,104
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                                                                                                                                                                                                                                                                                                                                                Score 192; Ub .,
Pred. No. 9.5e-12;
Pred. No. 9.5e-117;
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286
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                                                                                                                                                                                                                                                                                                                                                                                         Length 306;
                                                                                                                                                                                                                                                                                                                                                         Indels
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US-08-101-624-25
; Sequence 25, Appli
; Patent No. 5942607
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TELEFAX: (617) 227-5941 INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REFERENCE/DOCKET NUMBER: RP TELECOMMUNICATION INFORMATION: TELEPHONE: (617) 227,7400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ATTORNEY/AGENT INFORMATION: NAME: Mandragouras, Amy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CLASSIFICATION: 514
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SOFTWARE: PatentIn Release #1.0, Version #1.25 CURRENT APPLICATION DATA:
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TITLE OF INVENTION: No. 5942607el CTLA4/CD28 Ligands
TITLE OF INVENTION: Uses Therefor
NUMBER OF SEQUENCES: 25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE CHARACTERISTICS:
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                                                       FEATURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NAME: Mandragouras, Amy E. REGISTRATION NUMBER: 36,20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: FILING DATE: 26-JU
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
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                                                                                                                                                                                                                                                                                                                                                                               IDENTIFICATION METHOD: similarity with known IDENTIFICATION METHOD: sequence
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                   NAME/KEY:
LOCATION:
                                                                       LOCATION: 236 to 269 IDENTIFICATION METHOD: IDENTIFICATION METHOD:
                                                                                                                                                                                                                                                                                                                         NAME/KEY:
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 IDENTIFICATION METHOD:
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Nadler, Lee M.
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                                                                                                                                                                                                              transmembrane domain 211 to 235
                 Ig V-set domain 1 to 105
                                                                                                             intracellular (cytoplasmic) domain 236 to 269
                                                                                                                                                                                                                                                                                                         1 to 210
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superfamily member; T cell costimulatory signal
via activation of CD28 pathways, binds to CD28+
T cells, transmembrane protein
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similarity with known
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                                                                                                                                                           GENERAL INFORMATION:

APPLICANT: FREEMAN, GORDON
APPLICANT: FREEDMAN, ARNOLL
APPLICANT: NADLER, LEE M.
TITLE OF INVENTION: DNA ENC
TITLE OF INVENTION: Of The
TITLE OF INVENTION: Activat
                                                                                                                                                                                                                                                                                       Sequence 4, Application US/08153262 Patent No. 6071716
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Best Local Similarity
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IDENTIFICATION METHOD: simila IDENTIFICATION METHOD: sequen PUBLICATION INFORMATION: AUTHORS: FREEMAN, GORDON J.
                                                                                                                         NUMBER OF SEQUENCES: 4
CORRESPONDENCE ADDRESS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     146
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                                                                                                                                                                                                                                                                                                                                                                                                                                     265 RMLDVEKCGVEDTSSKNRNDTQFE 288
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                 COUNTRY: UZIP: 02115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           94
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           36 VTMECRE--PVERELDLLALVVYWEKEDEQVIQEVAGEEDLKPQHSNFRGRASLPKDQLL
                                                    STATE:
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                                                                                      STREET:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AUTHORS:
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                                                                                                         ADDRESSEE:
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                                                                     Boston
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READABLE FORM
                                                 Massachusetts
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1. Journal of Experimental Medicine
                                                                                     44 Binney Street
                                  U.S.A.
                                                                                                                                                                                                                                  FREEDMAN, ARNOLD S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
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                                                                                                                                                                                                                                                       FREEMAN, GORDON J.
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WHITE, MICHAEL
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                                                                                                           The Dana-Farber
                                                                                                                                                           DNA Encoding B7, A New Member
Of The IgG Superfamily With Unique Expression On
Activated And Neoplastic B Cells.
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23.9%;
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                                                                                                           Cancer Institute
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TELEFAX: (203) 259-28.
INFORMATION FOR SEQ ID NO:
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NAME/KEY:
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DESCRIPTION:
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LENGTH: 306 amino acids
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TELECOMMUNICATION INFORMATION:
TELEPHONE: (203) 255-8900
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                                                                                                                                                                                                                                                                                                                                                                                     FEATURE:
                    TITLE:
                                                   AUTHORS:
TITLE: 9
                                                                                   AUTHORS:
                                                                                                                                                                                                                                                                                                                                                                                                                                 NAME/KEY:
LOCATION:
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IDENTIFICATION METHOD:
IDENTIFICATION METHOD:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NAME/KEY: signal sequence LOCATION: -37 to -1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER: IBM PER OPERATING SYSTEM:
                                                                                                                     AUTHORS:
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Structure, Expression, and T Cell Costimulatory Activity Of The Murine Homologue Of The Human B Lymphocyte Activation Antigen B7: Journal of Experimental Medicine
                                                                GRIBBEN, JOHN G. NADLER, LEE M.
                                                                                                  FINGEROTH, JOYCE D
                                                                                                                                 ZHOU, LIANG-JI
                                                                                                                                                                   GRAY, GARY S.
GIMMI, CLAUDE D.
                                                                                                                                                                                                  FREEMAN, GORDON J.
                                                                                                                   WHITE, MICHAEL
                                                                                                                                                    LOMBARD, DAVID B.
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236 to 269
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                                                                                                                                                                                                                                                                                    Ig C-set domain
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Biskette, 3.50 inch, 720kb storage
Biskette, 3.50 inch, 720kb storage
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B lymphocyte activation antigen; Ig
superfamily member; T cell costimulator
via activation of CD28 pathways, binds
T cells, transmembrane protein
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RESULT 5
US-08-479-744A-31
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local S
Matches 63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Patent No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 31,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GENERAL INFORMATION:
                                                                                                                                      CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 01
FILING DATE: 26-UUL-1:
APPLICATION NUMBER: 01
                                                                                                                                                                                                                                                   COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM FC Compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version
CURRENT APPLICATION DATA:
                             ATTORNEY/AGENT INFORMATION:
NAME: Mandragouras, Amy
                                                                                                                                                                                                                                                                                                                                                                                                                              CORRESPONDENCE ADDRESS:
ADDRESSEE: LAHIVE &
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: Nadle APPLICANT: Gray,
                                                                                                                                                                                                                                                                                                                                                                                                                                                               NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                 STATE: M
COUNTRY:
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ISSUE:
PAGES:
DATE:
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             NAME: Mandragouras, Amy E. REGISTRATION NUMBER: 36,207
                                                                         APPLICATION NUMBER: FILING DATE: 26-JUL APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              97
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                                                              FILING DATE:
                                                                                                                            FILING DATE:
                                                                                                                                                                                                                     APPLICATION NUMBER: US/08 FILING DATE: June 7, 1995
                                                                                                                                                                                                                                                                                                                                                                                                                 STREET:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           94
 REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     36 VTMECRE--PVERELDLLALVVYWEKEDEQVIQFVAGEEDLKPQHSNFRGRASLPKDQLL
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         VLLPCRYNSPHEDESEDR----IYWQKHDKVVLSVIAGKLKVWPEY------KNRTL
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63; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                               60 State Street
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Nadler, Lee M.
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                                                                                                                           28-AUG-1993
                                                                                                                                          26-JUL-1994
UMBER: 08/109,393
                                                              3-NOV-1993
                                                                                          26-JULY-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gary S.
DN: No. 6084067el CTLA4/CD28 Ligands and DN: Uses Therefor
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No. 9.5e-12;
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                                                 Query Match
Best Local Similarity 23.9
Conservative
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TELEPHONE: (617) 227-7400
TELEPAX: (617) 227-5941
INFORMATION FOR SEQ ID NO: 31:
                                                                                                                                                                                                                                                                                                                                                                                     PUBLICATION INFORMATION:
AUTHORS: FREEMAN, GORDON J.
AUTHORS: GRAY, GARY S.
AUTHORS: GIMMI, CLAUDE D.
AUTHORS: LOMBARD, DAVID B.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE CHARACTERISTICS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NAME/KEY:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                IDENTIFICATION METHOD: similarity with known IDENTIFICATION METHOD: sequence
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                                                                                                                                                                                                                                                                                                                            AUTHORS:
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IDENTIFICATION METHOD:
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                                                                                                                                                           RELEVANT RESIDUES
                                                                                                                                                                                                                                                                                                           AUTHORS:
                                                                                                                                                                                                                                           JOURNAL:
                                                                                                                                                                                                           ISSUE:
VLLPCRYNSPHEDESEDR----IYWQKHDKVVLSVIAGKLKVWPEY------KNRTL
                           VTMECRF---PVERELDLLALVVYWEKEDEQVIQFVAGEEDLKPQHSNFRGRASLPKDQLL
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                                                                                                                                                                          IN PRESS
                                                                                                                                                                                                                                       Structure, Expression, and T Cell Costimulatory Activity Of The Murine Homologue Of The Human B Lymphocyte Activation Antigen B7:
Journal of Experimental Medicine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 306 amino acids
                                                                                                                                                                                                                                                                                                         FINGEROTH, JOYCE GRIBBEN, JOHN G. NADLER, LEE M.
                                                                                                                                                                                                                                                                                                                                                         WHITE, MICHAEL
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211 to 235
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106 to 199
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B lymphocyte activation antigen; Ig

B lymphocyte activation antigen; Ig

superfamily member; T cell costimulatory signal

via activation of CD28 pathways, binds to CD28+
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                                                                            12.7%;
23.9%;
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                                                           Score 192; DB 3; I
Pred. No. 9.5e-12;
6; Mismatches 117;
                                                                                                                                                           31: From
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                                                                                         Length 306;
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                                                            Indels
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                                                            Gaps
96
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                                                                                                                                                                            TELEFAX: (617) 227-594
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS MAN
SOFTWARE: PATONIC
CURRENAM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TITLE OF INVENTION: No. 6
                                                                                                                                                                                                                                                                                               FILING DATE: 3-NOV-1993
ATTORNEY/AGENT INFORMATION:
NAME: Mandragouras, Amy
                                                                                                                                                                                                                                                                                                                                                                                                                           PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                             TELECOMMUNICATION INFORMATION:
                                FEATURE:
                                                                                                                MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER:
FILING DATE: 26-JULY
APPLICATION NUMBER:
FILING DATE: 19-AUG
APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NUMBER OF SEQUENCES:
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                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: FILING DATE: 26-JUI CLASSIFICATION: 435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COUNTRY: UZIP: 02109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CITY: Boston
                                                                DESCRIPTION:
                                                                                                                              TYPE: amino acid TOPOLOGY: linear
                 NAME/KEY:
                                              DESCRIPTION:
                                                                                               DESCRIPTION:
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                                                                                                                                                                                                                                                                REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                               REGISTRATION NUMBER:
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                                                                                                                                                             LENGTH:
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                                                                                                                                                                                                                                                                                           Mandragouras, Amy E.
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Gray, Gary S.
Greenfield, Edward
Greenfield, Edward
CTLA4/CD28 Ligands
Therefor
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                                                                                                                                                              306 amino acids
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PatentIn Release #1.0, Version #1.25
signal sequence -37 to -1
                                                                                                                                                                                                                               (617)
                                              superfamily member; T cell costimulatory signal via activation of CD28 pathways, binds to CD28+ T cells, transmembrane protein
                                                                                                                                                                                                                                                                                                                                                              19-AUG-1993
                                                                                             protein
B lymphocyte activation antigen;
                                                                                                                                                                                                                                                                                                                                                                                             26-JULY-1993
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                                                                                                                                                                                                                                                                                                                                                08/147,773
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; DATE: IN PRESS; RELEVANT RESIDUES US-08-280-757B-31
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Best Local
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IDENTIFICATION METHOD: similarity with known IDENTIFICATION METHOD: sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PUBLICATION INFORMATION:
AUTHORS: FREEMAN, GORDON J.
AUTHORS: GRAY, GARY S.
AUTHORS: GIMMI, CLAUDE D.
AUTHORS: LOMBARD, DAVID B.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LOCATION: 1 to 105
IDENTIFICATION METHOD:
IDENTIFICATION METHOD:
FEATURE:
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 269
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                              265 RMLDVEKCGVEDTSSKNRNDTQFE 288
                                                                 216 TIKCLI----KYGDAHVSEDFTWEKPPEDPPDSKNTLVLFGAGFGAVITVVVIVVII----
                                                                                               205 VFYCTFWRSQPGQNHTAELIIPELPATHPPQNRTHWVLLGSILLFLIVVSTVLLFLRKQV 264
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AUTHORS:
AUTHORS:
AUTHORS:
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                                                                                                                                                                                                                                     94 KGNA--ALQITDVKLQDAGVYCCII-----SYGGADYKRITLKVNAPYRKINQRISVDP 145
                                                                                                                                                                                                                                                                               50
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mes 63; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AUTHORS:
                                                                                                                                                                                                                                                                                                          36 VTMECRF--PVERELDLLALVVYWEKEDEQVIQFVAGEEDLKPQHSNFRGRASLPKDQLL 93
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NAME/KEY: extracellular domain LOCATION: 1 to 210
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         JOURNAL:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AUTHORS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NAME/KEY:
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                                                                                                                                    SADTKRITCFASGGFPKPRFSWLENGRE-LPGINTTISQDPESELYTISSQLDFNTTRNH
                                                                                                                                                                      ATSEHELICQAE-GYPEAEVIWTNSDHQPVSGKRSVTTSRTEGMLLNVTSSLRVNATAND 204
                                                                                                                                                                                                       YDNTTYSLIILGLVLSDRGTYSCVVQKKERGTYGVKHLALVKLSIKADFSTPNITESGNP 156
                                                                                                                                                                                                                                                                           VLLPCRYNSPHEDESEDR---IYWQKHDKVVLSVIAGKLKVWPEY-----KNRTL 96
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Structure, Expression, and T Cell Costimulatory Activity Of The Murine Homologue Of The Human B Lymphocyte Activation Antigen B7:
Journal of Experimental Medicine
KCFCKHRSCFRRNEASRE 286
                                                                                                                                                                                                                                                                                                                                                  Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FINGEROTH, JOYCE D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WHITE, MICHAEL
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106 to 199
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1 to 105
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Pred. No. 9.5e-12;
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US-09-159-135-4
US-09-159-135-4
; Sequence 4, Application
; Patent No. 6149905
; GENERAL INFORMATION:
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TELEFAX: (617) 227-594
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                  MOLECULE TYPE:
DESCRIPTION:
DESCRIPTION:
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ADDRESSEE: LAHIVE & COCKFIELD
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LENGTH: 306 amino acids
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ATTORNEY/AGENT INFORMATION:
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                                                                                                                                                                                                                                                                                                                                  NAME/KEY: signal sequence LOCATION: -37 to -1
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DESCRIPTION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NAME: Mandragouras, Amy E. REGISTRATION NUMBER: 36,207
REFERENCE/DOCKET NUMBER: RP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: FILING DATE:
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NAME/KEY:
                                                                LOCATION:
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PatentIn Release #1.0, Version
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                                                              intracellular (cytoplasmic) domain 236 to 269
                                                                                                                                                   transmembrane domain 211 to 235
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IBM PC compatible
Ig V-set domain
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B lymphocyte activation antigen; Ig
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227-5941
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sequence
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                                                                                                                                                                                                                                                                    Sequence 17, Application PC/TUS9502576 GENERAL INFORMATION:
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COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
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                                                                                                                                              NUMBER OF SEQUENCES: 65
CORRESPONDENCE ADDRESS:
ADDRESSEE: LAHIVE 6 COCKFIELD
                                                                                                                                                                                                               TITLE OF INVENTION:
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STREET: U.
STREET: V.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AUTHORS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ISSUE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              VOLUME:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                JOURNAL:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LOCATION: 1 to 105
IDENTIFICATION METHOD:
                                                                               COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                       RMLDVEKCGVEDTSSKNRNDTQFE 288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SADTKRITCFASGGFPKPRFSWLENGRE-LPGINTTISQDPESELYTISSQLDFNTTRNH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     63;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Similarity
                                                         02109-1875
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       IN PRESS
                                                                                              Massachusetts
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Lymphocyte Activation Antigen B7

: Journal of Experimental Medicine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              : FINGEROTH, JOYCE D.
: GRIBBEN, JOHN G.
: NADLER, LEE M.
Structure, Expression, and T Cell Costimulatory
Activity Of The Murine Homologue Of The Human B
                                                                                                                                  60 State Street,
                                                                                                                                                                                                                                                                                                                                                                                   KCFCKHRSCFRRNEASRE 286
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ZHOU, LIANG-JI
WHITE, MICHAEL
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106 to 199
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                                                                                                                                                                                                             and Uses Therefor
                                                                                                                                                                                                                               Novel Forms of T Cell Costimulatory
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              similarity with known
                                                                                                                                    suite 510
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DB 3;
.5e-12;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 306;
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                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 9
PCT-US95-02576-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PCT-US95-02576-17
                                                                                                                                                                                                                                                                                                                                                                                         Sequence 2, Application PC/TUS9502576 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TELEFAX: (617)227-5941 INFORMATION FOR SEQ ID NO: 17:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NAME: Mandragouras, Amy E.
REGISTRATION NUMBER: 36,207
REFERENCE/DOCKET NUMBER: BWI-120CPPC
TELECOMMUNICATION INFORMATION:
TELEPHONE: (617)227-7400
                                                     SOFTWARE: ASCII Text
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: US 0 FILING DATE: 02-Mar-1994 ATTORNEY/AGENT INFORMATION:
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                                                                                                                                                                                                                                                                                       NUMBER OF SEQUENCES: 6
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE CHARACTERISTICS:
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PRIOR APPLICATION DATA:
                                                                                                                                                    COMPUTER READABLE FORM:
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                                                                         MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC Compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: ASCII Text
                                                                                                                                                                                                           STATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TYPE: amino acid TOPOLOGY: linear
                    APPLICATION NUMBER: FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        94
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 36 VIMECRF--PVERELDILALVVYWEKEDEQVIQFVAGEEDIKPQHSNFRGRASIPKDQLL 93
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     OPERATING SYSTEM: PC
SOFTWARE: ASCII Text
                                                                                                                                                                                                                                    CITY: Boston
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                                                                                                                                                                                           COUNTRY:
                                                                                                                                                                                                                                                                         ADDRESSEE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    KGNA--ALQITDVKLQDAGVYCCII-----SYGGADYKRITLKVNAPYRKINQRISVDP 145
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      l Similarity
62; Conserv
                                                                                                                                                                           02109-1875
                                                                                                                                                                                                             Massachusetts
                                                                                                                                                                                                                                                  60 State Street,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 306 amino acids
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                                                                                                                                                                                             USA
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                                                                                                                                                                                                                                                                           LAHIVE & COCKFIELD
                                                                                                                                                                                                                                                                                                                                Novel Forms of T Cell Costimulatory Molecules and Uses Therefor % \left\{ 1,2,\ldots ,n\right\}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    12.1%; Score 184; DB 4; 23.5%; Pred. No. 6.3e-11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PC-DOS/MS-DOS
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                                                                                                                                                                                                                                                    suite 510
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             286
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RESULT 10
PCT-US94-09642-2
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PCT-US95-02576-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 2, Application PC/TUS9409642 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches
                                                PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/120,606
FILING DATE: 13-SEP-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/116,882
FILING DATE: 03-SEP-1993
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TELEFAX: (617)227-594: INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                        COMPUTER: Apple Macintosh IIci
OPERATING SYSTEM: System Software 7.1
SOCTWARE: Microsoft Word 5.1a
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                              COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FILING DATE: 02-Mar-1994
ATTORNEY/AGENT INFORMATION:
NAME: Mandragouras, Amy E.
REGISTRATION NUMBER: 36,207
REFERENCE/DOCKET NUMBER: BWI-120CPPC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TELECOMMUNICATION INFORMATION: TELEPHONE: (617)227-7400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CORRESPONDENCE ADDRESS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 146
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 205 VFYCTFWRSQPGQNHTAELIIPELPATHPPQNRTHWVLLGSILLFLIVVSTVLLFLR 261
                NAME: Blasdale, John H. C. REGISTRATION NUMBER: 31,895
                                                                                                                                                                                                 CLASSIFICATION:
                                                                                                                                                                                                                    APPLICATION NUMBER: FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                        COUNTRY: USA
ZIP: 07940-1000
                                                                                                                                                                                                                                                                                                                                                                                                                                      CITY: Madison
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LENGTH: 320 amino acids TYPE: amino acid TOPOLOGY: linear
  REGISTRATION NUMBER: REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                        STREET:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               50 VLLPCRYNSPHEDESEDR---IYWQKHDKVVLSVIAGKLKVWPEY-----KNRTL 96
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: US 0 FILING DATE: 02-Mar-1994
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      KGNA--ALQITDVKLQDAGVYCCII-----SYGGADYKRITLKVNAPYRKINQRISVDP 145
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    VTMECRF--PVERELDLLALVVYWEKEDEQVIQFVAGEEDLKPQHSNFRGRASLPKDQLL 93
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SADTKRITCFASGGFPKPRFSWLENGRE-LPGINTTISQDPESELYTISSQLDFNTTRNH 215
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               56;
                                                                                                                                                                                                                                                                                                                                                                                                                 New Jersey
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (617)227-5941
(617)207-5941
(617)227-5941
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NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Protein and Related Reagents
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Purified Mammalian CTLA-4 Binding
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  DX0390K1
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Pred. No. 3.5e-10;
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Best Local
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INFORMATION FOR SEQ ID NO: 2:
                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT:
APPLICANT:
                                                                                                                                                     MEDIUM TYPE: Floppy disk
COMPOTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0,
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                        COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                               CORRESPONDENCE ADDRESS:
ADDRESSEE: LAHIVE & COCKFIELD
                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: Gray, Gary S.
TITLE OF INVENTION: TUMOR CELLS MODIFIED TO EXPRESS B7-2 AND B7-3 WITH INCREASE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE CHARACTERISTICS:
LENGTH: 323 amino acid
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ATTORNEY/AGENT INFORMATION:
                                                                                 PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                NUMBER OF SEQUENCES:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    119 QMNSELSVLANFSQPETVPISNITENVYINLTCSSIHGYPEPK-----
                APPLICATION NUMBER:
                                                    FILING DATE:
                                                                                                     CLASSIFICATION:
                                                                                                                       FILING DATE:
                                                                                                                                                                                                                                                                                              CITY: Boston
STATE: Massa
                                                                                                                                                                                                                                                                                                                                 STREET:
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                                                                  APPLICATION NUMBER: 08/101,624;
                                                                                                                                     APPLICATION NUMBER:
                                                                                                                                                                                                                                                                              COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           11 AFLLSGAAPLKIQAYFNETADLPCQFANSQNQSLSELVVFWQDQENLVLNEVYLGKEKFD 70
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TELEPHONE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GQNHTAELIIPELPATHPPQNRTHWV--LLGSILLFLIVVSTVLLFLRKQVRMLDVEKCG 273
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73; Conserv
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                                                                                                                                                                                                                                                                                                Massachusetts
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                                                                                                                                                                                                                                                                                                                                                                                                                                Freeman, Gordon
Nadler, Lee M.
                                                                                                                                                                                                                                                                              USA
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                                                26-JUL-1993
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23.1%;
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                19-AUG-1993
                                08/109,393;
                                                                                                                                       US/08/456,104
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                                                                                                                                                                                                                                                                                                                                 Suite 510
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ----CQA-EGYPEAEVIWTNSDHQPVSGKRSV 180
                                                                                                                                                                       Version #1.25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DB 4; Length 323;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 2, Application US/08101624
Patent No. 5942607
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Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TELEFAX: (617) 227-594
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                              COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/01
FILING DATE: 26-JUL-1993
CLASSIFICATION: 514
PRIOR APPLICATION DATA:
APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NAME: Mandragouras, Amy E.
REGISTRATION NUMBER: 36,207
RÉFERRINCE/DOCKET NUMBER: RP:
TELECOMMUNICATION INFORMATION:
TELEPHONE: (617) 227-7400
                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Freeman, Gordon J.
APPLICANT: Nadler, Lee M.
APPLICANT: Gray, Gary S.
TITLE OF INVENTION: No. 5942607el CTLA4/CD28 Ligands and
TITLE OF INVENTION: Uses Therefor
                                                                                                                                                                                                                                                                                                                                                    CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                       NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                274 VEDTSSKNRNDTQFEE 289
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                                                                                                                                                                                                                                                                                          CITY: Boston
                                                                                                                                                                                                                                                                                                             STREET:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GQNHTAELIIPELPATHPPQNRTHWV--LLGSILLFLIVVSTVLLFLRKQVRMLDVEKCG
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                                                                                                                                                                                                                                                                    Massachusetts
                                                                                                                                                                                                                                                                                                      E: LAHIVE & COCKFIELD 60 State Street, Suite 510
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                                                                                 US/08/101,624
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                                                                                                                                                                                                                                                                                              Sequence 2, Application US/08479744A
Patent No. 6084067
GENERAL INFORMATION:
APPLICANT: Freeman, Gordon J.
APPLICANT: Nadler, Lee M.
APPLICANT: Gray, Gary S.
APPLICANT: OF INVENTION: No. 6084067el CTLA4/CD28 Ligands apd
TITLE OF INVENTION: Uses Therefor
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Best Local S
Matches 73
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TELECOMMUNICATION INFORMATION:
TELEPHONE: (617) 227-7400
TELEFAX: (617) 227-5941
INFORMATION FOR SEQ ID NO: 2:
       SOFTWARE: PatentIn Release #1.0, VOCURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/479,744A
FILING DATE: June 7, 1995
                                                                                                                                              COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                        NUMBER OF SEQUENCES: 5
CORRESPONDENCE ADDRESS:
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ATTORNEY/AGENT INFORMATION:
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Local S.
73;
                                                                                 MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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TOPOLOGY:
CLASSIFICATION:
                                                                                                                                                                                                                      STREET: 60 S
CITY: Boston
                                                                                                                                                                                 COUNTRY: USA
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GY: linear
                                                                                                                                                                                                    Massachusetts
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                                                                                                                                                                                                                                       E: LAHIVE & COCKFIELD, LLP 60 State Street
                                                                  PatentIn Release #1.0, Version
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           --LLNVTSSLRV---NATANDVFYC-----TFWRSQP 215
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                                                                      #1.25
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US-08-280-757B-2
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FILING DATE: 28-AUG-1993
APPLICATION NUMBER: 08/101,624
FILING DATE: 26-JULY-1993
APPLICATION NUMBER: 08/147,773
FILING DATE: 3-NOV-1993
ATTORNEY/AGENT INFORMATION:
NAME: Mandragouras, Amy E.
REGISTRATION NUMBER: 36,207
REFERENCE/DOCKET NUMBER: RPI-004CP3
                                                                                                                                                                                                                                                                          GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TELECOMMUNICATION INFORMATION:
TELEPHONE: (617) 227-7400
TELEFAX: (617) 227-5941
INFORMATION FOR SEQ ID NO: 2:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TOPOLOGY: linear MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE CHARACTERISTICS:
LENGTH: 329 amino acids
                                                                                                                                APPLICANT: Freeman, Gordon J.
APPLICANT: Nadler, Lee M.
APPLICANT: Gray, Gary S.
APPLICANT: Greenfield, Edward
TITLE OF INVENTION: No. 6130316el CTLA4/CD28 Ligands and
TITLE OF INVENTION: Uses Therefor
NUMBER OF SEQUENCES: 53
                                                                                                         NUMBER OF SEQUENCES: 5
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRIOR APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           II.6%; Score 176.5; DB 3; Local Similarity 23.1%; pred. No. 4.Le-10; ses 73; Conservative 57; Micmotch-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           77 SVHSKYMGRTSFDSD-----SWTLRLHNLQIKDKGLYQCII-----HHKKPTGMIR--IH 124
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER:
COUNTRY: UZIP: 02109
                                      STATE:
                                                        CITY: Boston
                                                                         STREET:
                                                                                           ADDRESSEE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              QMNSELSVLANFSQPEIVPISNITENVYINLTCSSIHGYPEPK-----KMSV 171
                                      Massachusetts
                                                                         60 State Street, Suite 510
                    USA
                                                                                               LAHIVE & COCKFIELD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     26-JUL-1994
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                                                                                                                                                     ; Sequence 23, Application PC/TUS9502576
; GENERAL INFORMATION:
                                                                                                                                                                                                                      RESULT 15
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Best Local S
Matches 73
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CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION UMBER: 08/101,624
FILING DATE: 26-JULY-1993
APPLICATION NUMBER: 08/109,393
FILING DATE: 19-AUG-1993
APPLICATION NUMBER: 08/147,773
APPLICATION NUMBER: 08/147,773
APPLICATION THEORY-1993
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REFERENCE/DOCKET NUMBER: RP
TELECOMMUNICATION INFORMATION:
TELEPHONE: (617) 227-7400
TELEFAX: (617) 227-5941
INFORMATION FOR SEQ ID NO: 2:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM FC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
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CURRENT APPLICATION DATA:
APPLICATION NUMBER: US
                                         CORRESPONDENCE ADDRESS
                                                              TITLE OF INVENTION:
TITLE OF INVENTION:
NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MOLECULE TYPE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LENGTH: 329 amino acids
TYPE: amino acid
TOPOLOGY: linear
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ADDRESSEE: LAHIVE & COCKFIELD STREET: 60 State Street, suit
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   QMNSELSVLANFSQPEIVPISNITENVYINLTCSSIHGYPEPK------KMSV 171
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STREET:

Boston

suite 510

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Search completed: March 17, 2001, 09:44:52
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APPLICATION NUMBER: US 08/205,697
FILING DATE: 02-Mar-1994
ATTORNEY/AGENT INFORMATION:
NAME: Mandragouras, Amy E.
REGISTRATION NUMBER: 36,207
REFERENCE/DOCKET NUMBER: BWI-120CPPC
TELECOMMUNICATION INFORMATION:
TELEPAN: (617)227-7400
TELEFAX: (617)227-75941
INFORMATION FOR SEQ ID NO: 23:
SEQUENCE CHARACTERISTICS:
LENGTH: 329 amino acids
TYPE: amino acids
TYPE: amino acids
TYPE: amino acids
TYPE: amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ; MOLECULE TYPE: protein PCT-US95-02576-23
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
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                                                                                                                                                                                     232 ---FSIELEDPQPPPDHIP-----WITAVLPTVIICVMVFCLILWKWKKKKRPRNSYKCG
                                                                                                                                                                                                                            216 GQNHTAELIIPELPATHPPQNRTHWV--LLGSILLFLIVVSTVLLFLRKQVRMLDVEKCG
                                                                                                                                                                                                                                                                     125 QMNSELSVLANFSQPETVPISNITENVYINLTCSSIHGYPEPK------KMSV 171
                                                                                                                                                                                                                                                                                                                                                                                                    136 KINQRISYDPATSEHELI-------CQA-EGYPEAEVIWTNSDHQPVSGKRSV 180
                                                                                                      284 TNTMEREESEQTKKRE 299
                                                                                                                                          274 VEDTSSKNRNDTQFEE 289
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: ASCII Text
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STATE: Massachusetts
COUNTRY: USA
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